

INTERNATIONAL PRELIMINARY EXAMINATION REPORT



(PCT Article 36 and Rule 70)

10/516694

Applicant's or agent's file reference ---	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/PL 02/00081	International filing date (day/month/year) 31.10.2002	Priority date (day/month/year) 12.06.2002
International Patent Classification (IPC) or both national classification and IPC A47G33/08		
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- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.  
  
☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  
  
 These annexes consist of a total of 8 sheets.

- This report contains indications relating to the following items:
  - I ☒ Basis of the opinion
  - II ☐ Priority
  - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV ☐ Lack of unity of invention
  - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application

Date of submission of the demand  06.12.2003	Date of completion of this report  14.09.2004
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  MacCormick, D  Telephone No. +49 89 2399-7959  

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/PL 02/00081

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-6 received on 17.08.2004 with letter of 12.08.2004

**Claims, Numbers**

1-12 received on 17.08.2004 with letter of 12.08.2004

**Drawings, Sheets**

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/PL 02/00081

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	6
	No: Claims	1-5,7-12
Inventive step (IS)	Yes: Claims	6
	No: Claims	1-5,7-12
Industrial applicability (IA)	Yes: Claims	1-12
	No: Claims	

2. Citations and explanations

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/PL02/00081

**Re Item I**

The amendments filed with the International Bureau under Article 19(1) introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 19(2) PCT. The amendments concerned are the following:

(i) claims 1 & 2. The addition by the applicant of "...at least one module is of a shell construction..." implies that either the top or bottom module (1, 2) may be otherwise constructed, i.e. other than of shell construction. However, in the original application only the bottom shell module (2) is disclosed as being alternatively (i.e. not a shell) constructed.

Furthermore, nowhere in the original application is it disclosed that a "shell module is constructed by cutting a solid blown module mouth blown in a mould (or without using a mould)".

(ii) claims 4 & 6. The addition of "an articulated joint" is unallowable because nowhere in the original disclosure is such a feature included. The original application refers in this respect only to "articulating hinges".

(iii) claim 7. No basis can be found for the "metal rim (13)".

(iv) claim 10. An ornamental object "made of any material" is an unfounded broadening of the original disclosure and is therefore unallowable.

(v) claim 11 & 12. The inclusion of the terms "imprints", "silver" and "engraved" do not have a basis in the original disclosure.

**Re Item V**

Reference is made to the following documents: **D1: US-A-4 224 364**  
**D2: US-A-2 784 512**

The present application does not meet the criteria of Article 33(1) PCT, because the allowable subject-matter (see item I) of claim 1 is not new in the sense of Article 33(2) PCT.

The document **D1** discloses (the references in parentheses applying to this document):

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/PL02/00081

A thin-walled, glass ornament that opens (see column 4, lines 3-4 and figure 9) wherein it consists of at least two glass modules (11, 12) being dimensionally and spatially correlated in the connection plane (13) thereof.

All of the allowable features of claim 1 are therefore disclosed on D1. Furthermore, D2 also discloses the features of claim 1 (see in particular the description, column 1, lines 20-30 and figure 1).

The same reasoning applies, *mutatis mutandis*, to the subject-matter of the independent claim 2, which therefore is also considered not new or inventive.

Furthermore, dependent claims 3 - 5 and 7 - 12 do not appear to contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step, see documents D1 and D2, and the corresponding passages cited in the search report.

However, the combination of the features of dependent claim 6 appears neither to be known from, nor rendered obvious by, the available prior art.

### **A thin-walled, blown glass ornament that opens**

This invention relates to a thin-walled, blown glass, spatial body that opens to reveal an interior.

Various thin-walled, blown glass ornaments, in particular Christmas tree ornaments and other seasonal ornaments are presently in use.

All thin-walled, blown glass ornaments in use at present are characteristic in that they are comprised of a closed, spatial body of various shapes and typically contain one, sole opening for securing a suspension element to the body of the ornament. Among the known methods of manufacturing thin-walled, blown glass, Christmas ornaments there is a method described in the Polish Patent No. 171623 wherein a glass bulb is given an additional element of shape in the form of a projection vent situated on one of the longer walls of the bulb. This process takes place in the mould, while the bulb is being mouth blown. Once the bulb has been annealed, the projection vent is opened using a burner flame whereas the main fullering is sealed.

A method of manufacturing multi-element, thin-walled, blown glass, Christmas ornaments is known from European Patent No. 1028644, which describes a process wherein separate elements are assembled together by inserting a tenon, coated with quick setting adhesive, into a seat.

Among the methods of manufacturing thin-walled glass, blown glass, Christmas ornaments there is also a method known from the U.S. Patent No. 4,491,494, which relates to the surface decoration of blown glass ornaments. This method involves the application of a heat shrinking film onto the surface of an ornament. As well, there is a method known from the German patent application no. 3916839 A1 in which a predetermined part of an ornament's surface is coated with an adhesive; the ornament is then dipped into a container of plastic micro-spheres. The micro-spheres used for covering the ornament are partially filled with a scent.

These and other Christmas tree ornaments as well as methods of manufacturing thereof give the possibility of obtaining only a limited range of thin-walled, blown glass ornaments.

With the foregoing in mind, it is the object of the present invention to provide a new range of Christmas tree ornaments and other seasonal ornaments made of thin-walled, blown glass characteristic in that: a) they can be repeatedly opened in order to reveal an interior, without causing any breakage; and b) additional elements can be placed inside the ornaments which determine the attractiveness of the features thereof.

The object of this invention is created by constructing a thin-walled, blown glass ornament that opens, in particular a Christmas tree ornament, comprised of any spatial body characteristic in that the body consists of one or two modules mouth blown in separate moulds or mouth blown without using the mould, the so-called top module and bottom module which are dimensionally and spatially correlated with each other in the connection plane thereof.

The top and bottom modules can be connected or disconnected (separated) by means of locks situated on the rim of each module. The modules are then brought together by means of an articulating hinge or other articulated joint installed in the connection plane, which enables frequent bending aside of both modules, as well as by means of at least one lock (clip-lock) situated on the rim of the connection plane of each module.

The top module, comprised of one spatial element of shell construction, may be arranged or connected with the bottom module so as to constitute one whole; or, the modules may be disconnected (opened) so as to reveal an interior.

The upper unit may also consist of two or more spatial elements composing the entire element of the top module; thus, each element of the top module is capable of bending aside while remaining in articulated connection with the bottom module. Such a method further requires that the separate elements of the top module be connected to each other.

The bottom module may consist of a shell or spatial construction with a hollow interior, which provides a larger capacity for enclosing separate, miniature, ornamental objects. Alternatively, the interior of the bottom module may be closed from the top of the connection plane such that the bottom module constitutes a closed, solid body. Additionally, the bottom module may feature a flat bottom, which allows it to be placed (as opposed to suspended from above) on a flat surface. In the case of a flat-bottomed module, the top module has a closed fullering.

At least one miniature ornamental object may be contained within the body of the ornament so as to constitute an ornament-within-an-ornament. The miniature ornamental object may be placed directly on the interior wall of the bottom and/or of the top module; it may also be fastened onto the flat surface, or the 'roof', covering the bottom module.

The entire surface of the ornament is covered with ornamental <sup>imprints</sup> ~~expressions~~ obtained from a glass-blowing mould and is colorfully treated with such elements as paint, glitter, gold and/or patina and/or is engraved.

The solution, according to the invention, enables the generation of an entirely new 'family' of ornaments made of thin-walled, blown glass on the basis of two, primary construction modules constituting a top and a bottom. The top and the bottom modules can be in articulated connection with each other and can also be disconnected (separated) in order to reveal a miniature, ornamental object, or other gifts placed inside.

The object of the invention is illustrated in the attached drawings in which:

FIG. 1 is a front view of a closed ornament with ornamental expressions on its surface;

FIG. 2 illustrates the same ornament opened by bending aside a one-piece top module and including a miniature ornamental object inside;

FIG. 3 illustrates an ornament opened by bending aside two parts of a two-piece top module; the bottom module of an ornament features a flat bottom, which allows an ornamental object to be placed on a flat surface;

FIG. 4 illustrates an ornament opened and separated after prior unfastening of locks installed on the outer surface;

FIG. 5 illustrates an ornament in a shape of Santa Claus with a closed bag on his back;

FIG. 5a illustrates an ornament in a shape of Santa Claus with an open bag on his back;

FIG. 6 illustrates a closed box with an ornamental object in a shape of a fiddler installed on the lid of a box;

FIG. 6a illustrates a half-open box with an ornamental object in a shape of a fiddler installed on the lid of a box;

FIG. 7 illustrates an ornament with a smooth outer surface, consisting of two hemispheres with hollow interiors and characteristic in that the hemispheres are connected by means of a



joint which enables bending aside of the hemispheres; an ornament is closed and opened by means of a lock;

FIG. 7a illustrates an ornament from FIG. 7 opened so as to reveal an interior and suspended by means of a string;

The object of this invention will become apparent from the following description and examples of the invention's illustrative features.

#### *Example I*

The ornament illustrated in FIG. 1 consists of two modules, top 1 and bottom 2, made in one mould or in separate moulds. The surface of both modules is covered with ornamental ~~imprints~~ <sup>expressions</sup> 10 obtained from a mould in which they have been mouth blown. Both modules 1 and 2 are connected in the connection plane 3 and both modules feature a two-piece clip-lock 4 enabling frequent opening and closing of the ornament. At the opposite side of the lock 4 there is a metal hinge 5 or an articulated joint (not shown), which enables opening of the ornament so as to reveal the interior. The interior of the ornament is hollow and thus can be freely filled with additional, miniature objects. The upper part of the top module 1 features a projection 7 functioning as a suspension means.

#### *Example II*

FIG. 2 illustrates an ornament, which has been opened (the top module is bent aside) with the help of a hinge 5 connecting the ornament's top module 1 with its bottom module 2 after prior opening of a two-piece clip-lock 4. Inside the ornament's connection plane 3 and on the bottom module 2 there is a flat surface 11 comprising a base upon which an additional, miniature, ornamental object 9 is installed. The ornament may be repeatedly opened and closed due to the articulated connection of both modules. A clip-lock 4 is installed on the outside of the ornament. The ornament may also be suspended by means of a loop 7.

#### *Example III*

FIG. 3 illustrates an ornament featuring a two-piece top module 1a and 1b. Each part of the two-piece top module is attached to an articulating <sup>ed joint</sup> hinge 5. The upper part of each piece contains a projection 7 enabling suspension of the ornament by means of a lace, a lace hanger, an ornamental string, a bow or a wire. The bottom module 2 is provided with a flat base 8, which enables free placement of the ornament on any flat surface.

The bottom module 2 can be a shell construction with a hollow interior or, alternatively, a closed solid body with a flat surface at the connection plane of both modules. In the case of a shell construction, a roof may be inserted onto the bottom module in order to provide a surface 11 upon which a miniature, interior ornament 9 may be placed. In case of a hollow interior, it can be filled with various objects which can be contained inside.

#### *Example IV*

FIG. 4 illustrates an ornament made up of two modules, top 1 and bottom 2, separated permanently but which may also be re-connected by the opening and closing of clip-locks 5 situated on the rim of each module in the connection plane thereof. The upper part of the top module 1 features a closed fullering or an open fullering for affixing a suspension means. The outer surface of both modules 1 and 2 is covered with the ornamental <sup>imprints</sup> expressions 10. The interior of the ornament can be freely filled with various objects which can be contained inside.

#### *Example V*

FIG. 5 illustrates an asymmetric ornament in a shape of Santa Claus carrying a bag with presents, the top of which is closed. An asymmetric bottom module 2 features Santa Claus with a bottom part of the bag with presents and the top module 1 features a top part of a bag that opens. The rims of both modules are provided with a metal band 13 in the connecting plane thereof. The metal band 13 is provided with a hinge 5 which enables bending aside of the top module and a lock 4 which enables closing of both modules. FIG. 5a illustrates an ornament in a shape of Santa Claus carrying a bag, the top module of which is bent aside by means of a hinge 5 after prior opening of a clip-lock 4; the rims of both modules are provided with a metal band 13 in the connecting plane thereof. The top fullering 6 can be closed or opened in order to affix a suspension means. The interior of an ornament can be freely filled.

#### *Example VI*

FIG. 5 illustrates a closed, symmetrical spatial body in a shape of a box with an asymmetrical object in a shape of a fiddler installed on a lid of a box. The lid of the box together with an asymmetrical object in a shape of a fiddler constitute the top module 1 of a seasonal ornament; the bottom part of the box constitutes the bottom module 2 of a seasonal ornament. FIG. 6a illustrates the same open ornament, the top module 1 and the bottom module 2 of

which are bent aside by means of a hinge 5 after prior opening of a clip-lock 4. The rims of both modules are provided with a metal band 13 in the connecting plane thereof. The top fullering 6 can be closed or opened in order to affix a suspension means.

*Example VII*

FIG. 7 illustrates a closed, symmetrical body made without using a mould and having a shape of a ball consisting of two parts which have smooth surface. It is provided with a metal band 13 in the connecting plane thereof. The metal band 13 is provided with a hinge (not shown) and a lock 4. FIG 7a illustrates the same open ornament. A lock 4 is provided with a string 15 and/or a lace for suspending an open ornament. The ball has hollow interior which can be freely filled.

The hereabove examples illustrate a range of technical solutions regarding the modules constituting particular forms of thin-walled glass ornaments as far as mouth blowing technology, the final treatment eg. installing metal bands in the connection plane of the modules, as well as the opening/closing means are concerned. The size of the modules constituting different ornaments may vary from small modules of symmetrical body to big asymmetric bodies connected with each other in order to obtain the final technical effect. The size and the shape of the particular modules which are connected with each other is not important. The hollow interior can be freely filled with various objects which can be contained in such interior.

What is claimed is:

1. A thin-walled, blown glass ornament that opens, in particular, a Christmas tree or other seasonal ornament, of any spatial body, which is characteristic in that it consists of at least two glass modules: top (1) and bottom (2); the modules are dimensionally and spatially correlated in the connection plane (3) thereof; at least one module is of a shell construction obtained by cutting a solid blown module mouth blown in a mould.
2. A thin-walled, blown glass ornament that opens, in particular, a Christmas tree or other seasonal ornament, of any spatial body, which is characteristic in that it consists of at least two glass modules: top (1) and bottom (2); the modules are dimensionally and spatially correlated in the connection plane (3) thereof; at least one module is of a shell construction obtained by cutting a solid blown module mouth blown without using a mould.
3. An ornament according to claim 1 or 2, wherein the top module (1) and the bottom module (2) may be connected and/or permanently disconnected (separated) by means of at least two locks (4) situated on the rim of each module.
4. An ornament according to claim 1 or 2, wherein the top module (1) and the bottom module (2) are connected by means of an articulating <sup>ed joint</sup> hinge (5) or an articulated joint and are closed by means of at least one lock (4) situated on the rim of each module.
5. An ornament according to claim 1 or 2, wherein the top module (1) comprises one spatial body.
6. An ornament according to claim 1 or 2, wherein the top module (1) consists of at least two spatial bodies (1a) and (1b) and each of the elements is connected with the bottom module (2) in the connection plane (3) by means of articulating <sup>ed joint</sup> hinges (5) or by an articulated joint and at least one lock (4); wherein the top part is provided with a projection (7) for affixing a lace, or a lace hanger, or an ornamental string, and/or a bow, and/or a wire.
7. An ornament according to any of claims 1, 2, 3, or 4 wherein the edges of the modules, in the connection plane thereof, are provided with a metal rim (13), or other protection means which is provided with an articulated joint (5) for bending aside and a lock (4) for connecting both modules.
8. An ornament according to any of claims 1, 2, 3, or 4 wherein the top module (1) is provided with a projection (6) for suspending a hanger.

9. An ornament according to any of claims 1, 2, 3, or 4 wherein an object that can be contained inside the ornament is installed inside the ornament.
10. An ornament according to any of claims 1, 2, 3, or 4 wherein the top part of the bottom module (2) is provided with a flat surface in comprising of an inserted roof (11); at least one additional, miniature, ornamental object (9) made of any material is fastened onto the inserted roof (11), or directly on the inner wall of the bottom module.
11. An ornament according to any of claims 1, 3, or 4 wherein the outer surface of the top module (1) and the bottom module (2) is covered with <sup>ornamental</sup>imprints (10) obtained from a metal mould and the outer and/or inner surface of the ornament is then treated with paint and/or glitter and/or gold and/or silver and/or is engraved.
12. An ornament according to any of claims 1, 2, 4, 7, or 9 wherein a lock (4) for connecting both modules is provided with a suspension string (15); the smooth outer (14) and/or inner surface of an ornament is then treated with paint, and/or glitter, and/or gold, and/or silver, and/or is engraved.